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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/029,115	10/19/2001	Ying Luo	A-70229/RMS/DHR	2856
20350	7590	09/13/2006	EXAMINER	
TOWNSEND AND TOWNSEND AND CREW, LLP TWO EMBARCADERO CENTER EIGHTH FLOOR SAN FRANCISCO, CA 94111-3834			GIBBS, TERRA C	
			ART UNIT	PAPER NUMBER
			1635	

DATE MAILED: 09/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/029,115

Applicant(s)

LUO ET AL.

Examiner

Terra C. Gibbs

Art Unit

1635

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2,3 and 16-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2,3 and 16-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on October 19, 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

This Office Action is a response to Applicant's Amendment and Remarks filed June 22, 2006.

Claims 16, 22, and 23 have been amended.

Claims 2, 3, and 16-28 are pending in the instant application.

Claims 2, 3, and 16-28 have been examined on the merits.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Claim Rejections - 35 USC § 102***

In the previous Office Action mailed March 22, 2006, claims 16-20, 22 and 24-26 were rejected under 35 U.S.C. 102(e) as being anticipated by Plowman et al. [U.S. Patent No. 6,656,716] ('716). **This rejection is withdrawn** in view of Applicant's Amendment to the claims. Specifically, the Examiner is withdrawing this rejection in view of Applicant's Amendment to claims 16 and 22 to remove the term, "SEQ ID NO:6", and in view of Applicant's Amendment to claim 23 to be rewritten in independent form. It is noted that '716 discloses the amino acid sequence of human ZC3 (SEQ ID NO:15), which shares 99.1% identity to SEQ ID NO:6 of the instant invention, but does not comprise SEQ ID NO:6.

After careful reconsideration of the claims, a new grounds of rejection and new issues have been noted in the instant application as detailed below:

### ***Drawings***

The drawings filed on October 19, 2001 are acknowledged. The drawings are object to because the description of the drawings indicates that such material may very well be critical to determining whether there exists adequate description and enablement of the instant invention. In brief, Figures 6 and 9-12 are sufficiently poor enough that it is difficult to determine what is actually being described. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the

Art Unit: 1635

changes are not accepted by the Examiner, the Applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The Examiner would also like to point out to Applicant that Figure 9 contains typographical errors as the term, "tansfected plasminds" should correctly read, "transfected plasmids". Correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2, 3 and 16-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 2, 3 and 16-28 are indefinite because the terms "MINK3" as recited in claims 2, 16, 19, 20, and 22-26 and "ERK" as recited in claim 25 are not clearly defined. Since abbreviations often have more than one meaning, it is suggested that inserting the full name of the respective kinases would overcome the instant rejection.

### ***Conclusion***

Claims 2, 3, 17-21, and 27 are considered to be free of the prior art since the prior art does not teach or fairly suggest a recombinant nucleic acid comprising a

Art Unit: 1635

nucleic acid sequence that encodes a MINK3 protein comprising a nucleic acid sequence comprising SEQ ID NOs: 1, 3, and 5, or a nucleic acid sequence having at least 99% or 98% identity to a nucleic acid selected from SEQ ID NOs: 1, 3, and 5. Claims 16, 22, and 24-26 are considered to be free of the prior art since the prior art does not teach or fairly suggest a recombinant nucleic acid comprising a nucleic acid sequence that encodes a MINK3 protein comprising an amino acid sequence having at least 99% or 98% identity to an amino acid selected from SEQ ID NOs: 2 and 4. Claim 23 is considered to be free of the prior art since the prior art does not teach or fairly suggest a recombinant nucleic acid comprising a nucleic acid sequence that encodes a MINK3 protein comprising an amino acid sequence selected from SEQ ID NOs: 2, 4, and 6. Claim 28 is considered to be free of the prior art since the prior art does not teach or fairly suggest a recombinant nucleic acid comprising a nucleotide sequence that is complementary to a nucleic acid sequence having at least 98% identity to nucleotides 2804-3187 of SEQ ID NO:1.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Terra C. Gibbs whose telephone number is 571-272-0758. The examiner can normally be reached on 9 am - 5 pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Paras can be reached on 571-272-4517. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1635

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

tcg  
September 6, 2006

A handwritten signature in black ink, appearing to read "Peter C. Hill". The signature is fluid and cursive, with the first name "Peter" and last name "Hill" being clearly distinguishable, and "C." as a middle initial.